

Aspirin May be Adequate for Prevention of Thromboembolic Events following Revision Total Joint Arthroplasty

Paul M. Lichstein, MD, MS, Jenny Cai, BS, Rachael Wynne, RN, Eric B. Smith, MD,
Gregory K. Deirmengian, MD, **Javad Parvizi, MD, FRCS**

Introduction: The increased risks of venous thromboembolic disease (VTE) and wound complications associated with revision TJA may influence the choice of VTE prophylaxis. The goal of our study was to determine whether large differences in complication rates existed in patients receiving aspirin or warfarin for VTE prophylaxis after revision TJA.

Materials and Methods: We retrospectively reviewed a consecutive cohort of 223 revision TJAs. 137 patients received aspirin and 86 received warfarin for VTE prophylaxis with a goal INR 1.5-2.0. Univariate analysis was used to assess whether the VTE prophylaxis agent influenced risks of symptomatic VTE, bleeding, wound healing complications, and infection.

Results: The incidence of symptomatic VTE was 0.7% in patients receiving ASA, compared to 5.8% for patients receiving warfarin. The incidence of major bleeding was lower (3.6%) in the ASA group than the warfarin group (5.8%). The rate of wound complications at 10.2% and infection at 3.6% was lower in the ASA cohort, compared to 14.0% and 4.7%, respectively, in the warfarin group. Due to the small sample size, none of these difference reached statistical significance. With the observed effect size and power analysis, a minimum of 338 patients would be needed to avoid type II error for risk of VTE and 2436 patients for major bleeding.

Conclusions: The findings of this study reveal that aspirin may be an acceptable prophylaxis following revision TJA as the incidence of symptomatic VTE events does not seem to be substantially higher in the cohort that received aspirin compared to those who received more aggressive prophylaxis. Revision TJA patients are at increased risk of bleeding, and agents that are effective against VTE without causing increased bleeding would be a desirable choice in this patient cohort. The findings of this study are compelling enough to warrant further investigations.

